NATIONAL TEACHER TRAINING CENTRE

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Report on XXII National Course on
EDUCATIONAL SCIENCE FOR
TEACHERS OF HEALTH PROFESSIONALS

16th to 25th September, 1987

JAWAHARLAL INSTITUTE OF POSTGRADUATE
MEDICAL EDUCATION AND RESEARCH,
PONDICHERRY - 605006
INDIA

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1987

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JAWAHARLAL INSTITUTE OF
POSTGRADUATE MEDICAL EDUCATION AND RESEARCH
PONDICHERRY-605 006

NATIONAL TEACHER TRAINING CENTRE

COMMUNITY HEALTH CELL
47/1 St. Mark's Road, Bangalore-560 001

REPORT ON THE TWENTYSECOND NATIONAL COURSE ON EDUCATIONAL SCIENCE FOR TEACHERS OF HEALTH PROFESSIONALS

16TH TO 25 TH SEPTEMBER 1987

01926
MP 130 N87
COMMUNITY HEALTH CELL
326, V Main, I Block
Koramangala
Bangalore-560034
India

CONTENTS

List of Faculty Members	*Annexure I*
List of participants	*Annexure II*
Programme	*Annexure III*

Page No.

Introduction	
Course Planning & Design:	
- *Selection of Participants*	*3*
Individual Sessions	*9*
Presentation of Individual Projects	*29*
Course Evaluation	*30*
Valediction and Acknowledgement	*35*

List of Individual Projects	*Annexure IV*
Pre-test and Post-test Scores (Histogram)	*Annexure V*
Group Discussion Sociogram Groups I & II	*Annexure VI*

A LIST OF FACULTY MEMBERS

1. Dr. P. Bahadur
   Director — Project Director

2. Dr. D.K. Srinivasa
   Professor of P & S M

3. Dr. A.J. Veliath
   Professor of Pathology

4. Dr. Asha Oumachigui
   Assoc Professor of Obst & Gynae

5. Dr. C.H. Shashindran
   Assoc Professor of Pharmacology

6. Dr. D.P. Thombre
   Professor of Physiology

7. Dr. N. Ananthakrishnan
   Assoc Professor of Surgery

8. Dr. P.H. Ananthanarayanan
   Professor of Biochemistry

9. Dr. K.R. Sethuraman
   Assoc Professor of Medicine

10. Mr. B.V. Adkoli
    Asst Professor of
    Educational Technology

11. Mr. K. Vijayan Pillai
    Technical Supervisor

12. Dr. Samir C. Mitra
    Professor of Anatomy — Project Officer/ Coordinator

SECRETARIAT

1. Mr. A. Subramaniyan
   Stenographer

2. Mr. G.P. Amal Doss
   Audio Visual Assistant

3. Mr. K.S. Guru
   Lower Division Clerk

4. Mr. S. Jayaraman
   Electro Mechanic

5. Mr. M. Vivekanandam
   Gestetner Operator

6. Mr. K. Subramaniyan
   Sr. Safaiwala

7. Mr. S. Vijayarangam
   Daftry

Annexure-II

LIST OF PARTICIPANTS OF
XXII NATIONAL COURSE ON EDUCATIONAL SCIENCE

1. Dr. Prem Pais
Assoc Prof of Medicine
St. John's Medical College
Bangalore 560 034

2. Dr. Shameem Shariff
Asst Prof of Pathology
St. John's Medical College
Bangalore 560 034

3. Dr. Sylvia Kamath
Professor and Head
Department of Anatomy
St. John's Medical College
Bangalore 560 034

4. Dr. Shiv Dutt Shukla
Reader in Pharmacology
Gandhi Medical College
Bhopal 462 001

5. Dr. Sitendu Bose
Professor and Head
Department of Anatomy
Gandhi Medical College
Bhopal 462 001

6. Dr. B.R. Gantyat
Asst Prof of Obst & Gynae
VSS Medical College
Burla 768 017

7. Dr. S.S. Patra
Professor and Head
Department of Radio Diagnosis
VSS Medical College
Burla 768 017

8. Dr. G.A. Govinda
Professor of Medicine
Karnatak Medical College
Hubli 580 022

9. Dr. M.K. Guttal
Prof of Physiology
Karnatak Medical College
Hubli 580 022

10. Dr. L.M. Mahale
Prof of Pathology
Karnatak Medical College
Hubli 580 022

11. Dr. Mrs. S. Bose
Reader in Physiology
M.G.M. Medical College
Indore 452 001

12. Dr. Kavi Dutt Bhargava
Reader in Internal Medicine
Department of Medicine
M.G.M. Medical College,
Indore 452 001

13. Dr. Sushma Bhargava
Reader in Pathology
Department of Pathology
M.G.M. Medical College
Indore 452 001

14. Dr. B. Suryanarayana
Professor of Medicine
Rangaraya Medical College
Kakinada 533 008

15. Dr. P. Venkataramanaraju
Prof & H/D of P & S M
Rangaraya Medical College
Kakinada 533 008

16. Dr. S. Venkateswara Rao
Prof of Ophthalmology
Rangaraya Medical College
Kakinada 533 008

17. Dr. S. Bapiraju
Professor and Head
Dept of Microbiology
Medical College
Chengalpattu 603 001

18. Dr. Shakuntala Subramanian
Professor of Biochemistry
Chengalpattu Medical College
Chengalpattu 603 001

19. Dr. A. Ramachandran
Asst Director
Central Leprosy Teaching & Research Institute
Chengalpattu 603 001

20. Dr. Ahmad Zia Mawlayi
WHO Fellow from Afghanistan
C/o Director
JIPMER, Pondicherry 605006

21. Dr. Geetha Rajagopalan
Assoc Professor of Obst & Gynae
JIPMER
Pondicherry 605006

22. Dr. D. Konar
Assoc Prof of Physiology
JIPMER
Pondicherry 605006

23. Dr. V. Prema
Assoc Prof of Pathology
JIPMER
Pondicherry 605006

ANNEXURE-III

JAWAHARLAL INSTITUTE OF POSTGRADUATE MEDICAL EDUCATION & RESEARCH,
PONDICHERRY-605 006

National Teacher Training Centre

XXII NATIONAL COURSE ON EDUCATIONAL SCIENCE FOR TEACHERS OF HEALTH PROFESSIONALS

16 - 25 SEPTEMBER 1987

PROGRAMME

Registration;

Secretariat at Central Library on 16.9.85 at 8.30 am

Day/Date	Time	Session	Resource Persons
Wednesday	9-00 am	Introduction	Director
16.9.1987	9-30 am	Pre-test	- Dr. Samir C. Mitra - Dr. C.H. Shashindran
	10.00 am	Get acquainted	Dr. P.H.Ananthanarayanan
	12-00 noon	Course Orientation	Dr. Samir C. Mitra
	12-30 pm	**Lunch break**	
	2-00 pm	Group Dynamics (**Fish Bowl**)	Dr. D.K. Srinivasa
	4-00 pm	Programmed Instructions on Objectives	Dr. Asha Oumachigui
	4-30 pm	Daily Evaluation/ Faculty meeting.	
Thursday **17.9.1987**	8-30 am	Review/ Preview	
	8-40 am	Educational Objectives-I	Dr. Asha Oumachigui
	11.00 am	Introduction to Microteaching	Mr. B.V. Adkoli
	11.45 am	Introduction to Individual Projects	Dr. Samir C. Mitra
	12.30 pm	**Lunch break**	
	2-00 pm	Educational Objectives II ***(Taxonomy)***	*Dr. A.J. Veliath*
	3-30 pm	Daily Evaluation/ Faculty meeting	
	3-40 pm	**Visit to JIPMER Hospital**	

(1)	(2)	(3)	(4)
Friday **18.9.1987**	8-30 am	Review/ Preview	
	8-40 am	Educational Objectives-III *(S.I.O)*	*Dr. C.H. Shashindran*
	11-15 am	Teaching/Learning Concepts & Principles	Dr. D.P. Thombre
	12.30 pm	**Lunch break**	
	2-00 pm	Teaching/Learning Methods	Dr. K.R. Sethuraman
	4-30 pm	Daily Evaluation Faculty meeting	
Saturday **19.9.1987**	9-00 am	Visit to **International Centre of Education**	Dr. C.H. Shashindran Dr. P.H.Ananthanarayanan
	1-30 pm	Review/Preview	
	1-40 pm	Teaching/Learning Media	Dr. Samir C. Mitra Mr. Vijayan Pillai
	4-30 pm	Daily evaluation/ Faculty meeting	
Sunday **20-9-1987**	---	EDUCATIONAL TOUR	
Monday ***21.9.1987***	8-30 am	Review/Preview	
	8-40 am	Evaluation: **An Introduction**	Dr. Asha Oumachigui
	10-30 am	EM I Essay type questions	*Dr. D.K. Srinivasa*
	12-30 pm	**Lunch break**	
	2-00 pm	EM II Oral Examination	Dr. Samir C. Mitra
	2-30 pm	Introduction to Multiple Choice Questions	Dr. N. Ananthakrishnan
	3-00 pm	Preparation time for Micro-teaching session	
	4-00 pm	Daily Evaluation Faculty meeting	

(1)	(2)	(3)	(4)
Tuesday 22 9.1987	8-30 am	Review/Preview	
	8-40 am	EM III Comments on and construction of different types of MCQs	Dr. N.Ananthakrishnan
	12-30 pm	**Lunch break**	
	2-00 pm	Micro-teaching sessions	All faculty
	4-00 pm	Daily evaluation/ Faculty meeting	
Wednesday 23-9-1987	8-30 am	Review/Preview	
	8-40 am	Curriculum Development I	Dr. D.K. Srinivasa
	12-30 pm	**Lunch break**	
	2-00 pm	Item Analysis	Dr. N. Ananthakrishnan
	3-00 pm	Innovations in self learning **SPMP/CAL**	Dr. K.R. Sethuraman
	4-30 pm	Daily Evaluation Faculty meeting	
Thursday 24-9-1987	8-30 am	Review/Preview	
	8-40 am	Curriculum Development II	Dr. D.K. Srinivasa
	10-30 am	Mechanics of Question Paper Setting	Mr. B.V. Adkoli
	12-30 pm	**Lunch break**	
	2-00 pm	Post test	Dr. Samir C. Mitra Dr.C.H. Shashindran
	2-30 pm	Daily evaluation Faculty meeting	
	2-45 pm	Preparation time for Individual Projects	

PTO

(1)	(2)	(3)	(4)
Friday 25-9-1987	8-30 am	Review/Preview	
	8-40 am	Presentation of Individual Projects	- Dr. Samir C. Mitra - Dr. D.K. Srinivasa - Dr. A.J. Veliath - Dr. D.P. Thombre
	12-30 pm	**Lunch break**	
	2-00 pm	Programme evaluation	Dr. Samir C. Mitra
	3-00 pm	**Valedictory function**	

1. INTRODUCTION

A brief account of the establishment of National Teacher Training Centre at JIPMER and its goals have been enumerated.

ESTABLISHMENT OF N.T.T.C.:

The National Teacher Training Centre at JIPMER was established by the Government of India, in the year 1975, in pursuance of the recommendation of the working group for Medical Education, Training and Research appointed by the Ministry of Health and Family Welfare.

The general goals of the N.T.T.C are:

i. To promote the training of teachers of health professionals in educational science and technology.

ii. To promote the development and application of systematic educational process, such as educational planning, curriculum development, teaching techniques, instructional materials and evaluation.

iii. To promote and conduct educational research.

In view of the above goals, the Centre holds twice a year National Courses on Educational Science for the teachers of Health Professionals, selected from various States of India in general and Southern States in particular. These courses are of ten days duration and usually held during the months of February/March and Septemnber/October respectively. So far the Centre has organised 22 National Courses in which 450 participants from 74 medical colleges of 19 states and Union Territories and seven WHO Fellows from Bangladesh, Mongolia and Afghanistan have been exposed to the concepts and principles of Educational Science.

Besides National Courses, the Centre also conducts short workshops on Education Planning. So far four WHO sponsored

workshops have been organised by the centre, in which the Deans/ Principals of Medical Colleges, Directors of Medical Education of various States and Deans of Faculty of Medicine from various Universities have participated. The WHO Sponsored Workshop on 'Application of Management Techniques in the Training of Health Professionals' held in February this year has opened a new area of future thrust.

At the Institutional level, the Centre conducts mini workshops for the faculty members and the postgraduate students of JIPMER on various topics of Educational Science. With the establishment of Pondicherry University, JIPMER took up Redesigning of Undergraduate Medical Curriculum. As a prelude to this exercise, the NTTC organised a workshop on "Curriculum Designing" for the senior faculty members of JIPMER. The Centre also provides consultancy to various institutions in organising teacher training programmes. WHO fellows from neighbouring developing countries are deputed to the Centre on short and long term fellowships. Recently NTTC has diversified its activities thus exploring new areas related to health professionals education, especially in the areas related to the Primary Health Care approach. These include Health Services Research, Management Information System, Health Care Economics, Inter Sectoral Coordination for Health, Formal and Non-formal Health Education, Vocational Training, Community Participation, etc.

2. COURSE PLANNING AND DESIGN

The following pages give an account of the planning of the course with respect to the selection of participants, setting up of course objectives and designing of the course, etc.

The NTTC is financed by the Government of India under its scheme - Continuing Education of Model Teachers. Besides, WHO also offers supply of audiovisual equipments, fellowship to faculty and sponsors Group Educational Activity from time to time.

The National Courses conducted by the Centre are expected to result in a snowballing effect on the Medical Education System in the country. The Medical teachers who participate in the national course are expected to take initiative in setting up Medical Education Units/Cells in their own institutions to promote educational activities.

2.1 Selection of participants:

Circulars were sent to the Secretaries of Government and Directors of Medical Education/Services and Principals/Deans of Medical Colleges of all States inviting nominations of senior teaching staff of medical institutions working under them. Further, they were requested to sponsor three teachers from each institution preferably one each from pre-clinical, para-clinical and clinical disciplines, who had demonstrated intiative and shown keen interest in medical education. The idea behind this strategy is that the teachers trained at NTTC would form a 'critical mass' and this would enable them to set up a Medical Education Unit/Cell, in their respective institutions.

2.2 The response was quite overwhelming and initially thirty seven nominations were received. For the effective implementation of the training, twenty-two nominees were tentatively selected for the course. All the nominees selected were provided with copies of general goals of the course, a tentative programme, an annotated bibliography and a questionnaire for deriving their attitude towards Educational Science, their expectations from the course, and their views about the existing teaching/learning activities and methods of assessment in their own institutions. The information furnished by the participants were utilised in framing the objectives and designing the teaching/learning programmes of the course. Finally twenty-three (23) participants including three from JIPMER and one WHO Fellow from Afghanistan attended the course.

2.3 Faculty:

There were twelve (12) faculty members, ten of whom were part-time resource persons belonging to pre-clinical, para-clinical and clinical disciplines and having active teaching responsibilities in JIPMER. Majority of these resource persons have undergone training in Educational Technology at Regional Teacher Training Centre (RTTC) Peradeniya, Sri Lanka, Bangkok, Thailand and Sydney, Australia, and the Centre for Medical Education, Dundee (U.K) The two regular faculty members consisting of one Assistant Professor of Educational Technology and one Technical

Supervisor have special training and experience in their respective fields. The Director of JIPMER acts as the Project Director of NTTC (Annexure-I)

2.4 **Course Objectives:**

The following were the general objectives of the course. At the end of the course, the participants shall be able to:

i) apply the principles of educational science to the field of Medical Education, specially in the formulation of educational objectives, selection of appropriate instructional methods and media and adoption of evaluation techniques,

ii) identify a specific educational problem in his/her local setting and initiate a plan of action to solve that problem,

iii) recognise the principles involved in framing a curriculum for undergraduate medical education,

iv) appreciate the need to establish a medical education unit in his/her institution.

2.5 **The Course Pattern:**

The course was conducted for ten days. The deliberations on each day included 2-4 sessions devoted to different aspects of the course.

2.6 The course was semistructured and based on the workshop method for conducting deliberations. The conventional method of training through lectures was scrupulously avoided. The participants worked in small groups of 5-6 persons and discussed separately the tasks which were assigned by the Faculty, to achieve the pre-determined objectives. The deliberations of the groups were presented and discussed in detail during plenary sessions. The group members were reshuffled for each particular task in order to avoid monotony and encourage interaction between new individuals. .

2.7 In addition to the group discussions, individual tasks, home assignments, group games and role play, etc. were used effectively to bring an element of novelty.

Audio-visual aids:

2.8 The aids commonly used during the course consisted of Chalk Board, Flannel Board, Charts, Models, Simulators, Overhead Projector, Slide Projector, Synchronised Tape Slide, Closed Circuit and Colour Video Television systems, etc. The overhead projector was used to the maximum extent by all the participants. Few trigger films were also shown in the session on teaching learning methods.

Library Service:

2.9. The participants were provided with an annotated bibliography of books and journals relating to Medical Education well in advance, viz. one month before the commencement of the course.

2.10 The participants were provided with the facility of Library Service adjacent to the Course Venue. Books and journals relating to Medical Education and Educational Science/Technology were classified and displayed. The participants fully utilised this facility by borrowing the journals for overnight reading, and on-the-spot study as well.

Rapporteurs:

2.11. The participants selected three to four members from amongst themselves, who acted as rapporteurs for each day, on rotation. The rapporteurs compiled the summary of the day's proceedings and presented the same along with the daily evaluation analysis in the Review/ Pre-view session at the beginning of the following day's programme.

Daily Evaluation:

2.12. At the end of each day, the participants were required to evaluate each session and also 'the day as a whole' on a rating scale as 'very helpful', 'helpful', 'not helpful' and 'no comments'. They also mentioned the factors which facilitated or hindered their learning process on that day along with additional comments/ suggestions, if any.

2.13. The responses of the participants collected from the daily evaluation sheet, as mentioned above, were analysed and presented by the Rapporteurs for the day, along with the summary of the day's proceedings in the Review session of the following day as mentioned under 2.11.

Faculty Meeting:

2.14 At the end of each day, a faculty meeting was held to review the day's proceedings. The rapporteurs for the day also took part in the said meeting. The subsequent sessions were re-arranged/modified in the light of the daily evaluation responses of the participants, whenever required.

Secretariat Service:

2.15 Efficient secretariat service was freely made available to the participants who were also supplied with course materials, transparencies, hand-outs, daily reports by rapporteurs and Individual Projects in time.

INDIVIDUAL SESSIONS

A brief description of the deliberations of each session of the course, with respect to the objectives, learning experience and evaluation by the participants follows....

16.9.1987

INTRODUCTION: The course was introduced by Dr. P. Bahadur Director, JIPMER, Pondicherry on 16th September'88. He traced in brief the history of National Teacher Training Centre at JIPMER and its activities during the last 10 years.

PRE-TEST : This was followed by administration of a Pre-Test to the participants. The objective of administering the pre-test was not to judge the proficiency of individual participants but to consider the entry level knowledge of the participants with respect to various concepts of Educational Science, so as to determine the effectiveness of the course, at the end.

SESSION - I

Get Acquainted

OBJECTIVE : To create a harmonious and informal atmosphere amongst the participants and the faculty members so as to promote active participation in the deliberations.

LEARNING EXPERIENCE :

i) . Formation of eleven sub-groups of three (participants and faculty members) each:

ii) Self introduction at the sub group level for 10 minutes.

iii) Each participant introducing one of his sub group members to the whole group.

EVALUATION:

Very helpful	13
Helpful	9
Not helpful	1

SESSION-II

GROUP DYNAMICS - AN INTRODUCTION

Fish Bowl Technique

OBJECTIVES:

i) To identify the factors facilitating or hindering the group discussion.

ii) To study the role played by different members participating in a group discussion.

iii) To demonstrate the skills that are required for promoting small group discussion.

iv) To explore the possibility of using group discussion for identifying the problems related to undergraduate medical education.

LEARNING EXPERIENCE:

i) Formation of two groups

ii) Application of Fish-bowl technique

iii) Discussion topic for Group-I:

Agree-Disagree statements in respect of small group discussion.

Discussion topic for Group-II:

Identification of problems and limitations in the existing system of Medical Education.

iv) Plenary session to identify the behaviour of each group.

RESOURCES: Handouts on:

i) Guidelines for conducting group discussion;

ii) Role of group leader;

iii) Check - list for observing the group behaviour.

iv) Agree-Disagree statement

v) Group Task

vi) Sociogram (Annexure-VI)

EVALUATION:

Very helpful	8
Helpful	14
Not helpful	1

PROGRAMMED INSTRUCTION:

At the end of the second session programmed learning material on educational objectives was distributed to the participants for overnight reading

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17.9.1987

SESSION-I

EDUCATIONAL OBJECTIVES-I

OBJECTIVES:*i)* *To define educational objectives.*

ii) *To identify the uses of educational objectives, their types, characteristics and sources.*

iii) *To identify the role of National Health Policy in the medical education process.*

iv) *To formulate institutional objectives for the training of undergraduate medical students.*

LEARNING EXPERIENCE

i) *Study of programmed instruction manual on educational objectives (for overnight reading)*

ii) *Group task on (a) National Health Policy (b) Framing of Institutional Objectives.*

iii) *Plenary session*

RESOURCES:

i) *Programmed instruction booklets on educational objectives.*

ii) *Copies of National Health Policy document.*

EVALUATION:

Very helpful	..	*10*
Helpful	..	*13*

INTRODUCTION TO MICRO-TEACHING:

In this briefing session, the participants were given an idea about the concept, principles and procedure of Micro-teaching with the help of illustrations. The participants were also informed how to prepare a micro-teaching session for practising the same in their respective groups.

INTRODUCTION TO INDIVIDUAL PROJECT:

The participants were asked to identify a specific educational problem encountered by them in their Institution and to prepare a plan of action to solve the problem by applying systematic methods.

GUIDELINES:

The steps involved in systematic problem solving were enumerated. The participants were assured of library facilities, individual consultation and secretarial assistance which could be availed of during their free time during the course. The project was to be presented in general session on the final day of the course.

RESOURCES:

Handout on steps of project formulation

EVALUATION:

Not applicable.

SESSION-II

EDUCATIONAL OBJECTIVES : TAXONOMY

OBJECTIVES:

i) *To classify the given Educational Objectives under Cognitive, Psychomotor and Affective domains.*

ii) *To formulate Educational Objectives under the above mentioned domains.*

iii) *To formulate objectives at different hierarchical levels in cognitive, affective and psychomotor domains.*

LEARNING EXPERIENCE:

i) *Introduction to Taxonomy*

ii) *Group task of framing objectives under different domains and different levels*

iii) *Plenary session.*

EVALUATION:

Very helpful	..	*14*
Helpful	..	*8*
Not helpful	..	*1*

18.9.1987

SESSION-I

SPECIFIC INSTRUCTIONAL OBJECTIVES

OBJECTIVES:

i) *To define Specific Instructional Objective*

ii) *To frame Specific Instructional Objectives (SIO) keeping in view the elements and characteristics of Specific Instructional Objectives.*

LEARNING EXPERIENCE:

i) *Introduction to S.I.O.*

ii) *Group Work: Each participant to frame atleast one S.I.O. which were scrutinized by the group.*

iii) *Plenary session.*

EVALUATION:

Very helpful	..	*15*
Helpful	..	*6*
Not helpful	..	*2*

SESSION-II

CO-ORDINATION AND CO-OPERATION

OBJECTIVES:

i) To study the behaviour of the individuals who are subjected to a common group task.

ii) To appreciate the need for coordination and cooperation among group members to reach a common group goal.

LEARNING EXPERIENCE:

i) Formation of five groups

ii) Group task of completing perfect squares with the help of given sets of geometrical figures, by giving only and not asking for.

iii) Five sets of broken square cards which form a perfect square for 5 members of each group.

EVALUATION :

Very helpful	:	*12*
Helpful	:	*11*
No comments	:	*1*

SESSION-III

TEACHING - LEARNING CONCEPTS AND PRINCIPLES

OBJECTIVES :

i) To differentiate between teaching and learning

ii) To list different principles of learning

iii) To identify the factors facilitating/hindering student learning.

LEARNING EXPERIENCE:

i) Presentation of principles of learning

ii) Discussion on the factors facilitating /hindering learning.

iii) Group task on identification of some class room situations in which learning process is not effective, and to suggest ways and means to improve the same.

RESOURCES: Hand-outs on teaching/ learning process, principles of learning, conditions facilitating learning , and Overhead Projector.

EVALUATION:

Very helpful : *11*

Helpful : *12*

SESSION-IV

TEACHING METHODS

OBJECTIVES : i) To enumerate the different methods of teaching in individual, small group and large situations.

ii) To identify appropriate teaching method(s) for facilitating attainment of given instructional objectives.

LEARNING EXPERIENCE:

i) Display of trigger films to evoke response from participants regarding defects in traditional methods of teaching.

ii) Group work on identification of appropriate teaching methods:

a) set of objectives

b) Contrived situations

RESOURCES: I) Trigger films

ii) Chalk board

iii) Hand-outs

EVALUATION: Very helpful : *16*

Helpful : *7*

19.9.1987

SESSION-I

VISIT TO INTERNATIONAL CENTRE OF EDUCATION

OBJECTIVES: To get acquainted with a system of education which stresses:

i) Free progress and development of pupils according to their own pace.

ii) All round development of personality.

LEARNING EXPERIENCE:

i) Field visit to Sri Aurobindo International Centre of Education under the guidance of the principal of the Centre.

ii) Observation of functioning of various sections and departments of the Centre.

iii) Discussion with the students and the staff.

EVALUATION:

Very helpful	:	*13*
Helpful	:	*9*
No Comments	:	*1*

SESSION-II

TEACHING LEARNING MEDIA

OBJECTIVES:

i) To identify the various audio-visual aids with special reference to their advantages and disadvantages.

ii) To enumerate the principles involved in the presentation of Audio-visual software and selection of appropriate A.V aid.

iii) To demonstrate the use of simulators for practising psychomotor skills.

LEARNING EXPERIENCE:

i) Demonstration of working of various Audio-visual equipments.

ii) The advantages and disadvantages of various A.V. equipments.

iii) Distinction between method and media.

iv) Observation and Role play.

v) Demonstration of simulations

RESOURCES: Visual aids (projected and non-projected) Audio Aids. Audio Visual Aids. Simulators for psychomotor training.

EVALUATION: Very helpful : *22*

Helpful : *1*

21.9.1987

SESSION-I

EVALUATION: DEFINITION AND PURPOSE

OBJECTIVES:

i) To appreciate the purpose, process and role of evaluation.

ii) To differentiate between formative and summative evaluation.

iii) To define the qualities of measuring instrument.

iv) To list the various methods of evaluation.

v) To identify appropriate evaluation tool for given situations.

LEARNING EXPERIENCE:

i) Discussion on the definition, purpose and role of evaluation.

ii) Comparative aspects of Formative and Summative evaluation.

iii) Demonstration of characteristics of tools of evaluation.

iv) Types of Evaluation/Examination.

v) Group work on identification of proper evaluation tool in given situation.

RESOURCES: Handouts on definition, purpose and types of evaluation, characteristics of evaluation tools methods of evaluation.

Overhead Projector

Chalk board

EVALUATION: Very helpful : *10*

Helpful : *12*

Not helpful : *1*

SESSION-II

ESSAY TYPE QUESTIONS

OBJECTIVES: i) To identify the characteristics of essay type questions.

ii) To identify the advantages and disadvantages to essay type questions.

iii) To critically examine the construction, marking of essay type question and to refine the same.

LEARNING EXPERIENCE:

i) Introduction/Discussion on the characteristics of essay type questions.

ii) Discussion on Advantages and Disadvantages.

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iii) Group work on:

a) critical appraisal of given set of essay type questions.

b) cr itical appraisal of given marking scheme.

c) assessment of given essay type answers

iv) Plenary session

RESOURCES: Handouts on essay type questions, marking scheme and student's answers.

Chalkboard

Overhead Projector

EVALUATION:

Very helpful : 12

Helpful : 11

SESSION-III

ORAL EXAMINATION

OBJECTIVES : i) To identify the limitations of traditional oral examination.

ii) To offer suggestions for the improvement of oral examination.

LEARNING EXPERIENCE : Role play technique - one faculty member acting as External Examiner, one as Internal Examiner and one as Candidate. Role play was followed by discussion.

RESOURCES : Chalk board

Video Recorder and monitors

Check list for assessment of oral examination.

EVALUATION : Very helpful : 14

Helpful : 9

22-9-1987

SESSION-I

COMMENTS ON CONSTRUCTION OF MCQs

OBJECTIVES :

i) To identify the components of MCQs

ii) To recognise the various types of MCQs

iii) To consider the guidelines to be followed in the construction of MCQs.

iv) To identify the advantages and the disadvantages of MCQs.

LEARNING EXPERIENCE :

i) Distribution of handouts on different types of MCQs and guidelines for construction of MCQs for overnight reading.

ii) Group task of commenting on the construction of given MCQs

iii) Group tasks of preparing MCQs belonging to one best response type, multiple response type and relationship analysis type.

iv) Plenary session

RESOURCES: Handouts on different types of MCQs and the guidelines for the construction of MCQs.

Overhead projector.

EVALUATION: Very helpful : *20*

Helpful : *3*

SESSION-II

MICRO-TEACHING

OBJECTIVES:

i) To practice a micro-teaching session in one's discipline

ii) To receive feedback from students, peers and the faculty.

LEARNING EXPERIENCE:

i) Introduction to micro-teaching and notification of batches for micro-teaching beforehand.

ii) Actual presentation by each participant in turn (for about 8-10 min.)

iii) Simultaneous observation by the students and peers in the given observation schedule.

iv) Reflections by the students and peers.

v) Feedback from the students and peers.

vi) Discussion

EVALUATION:

Very helpful : 20

Helpful : 3

23.9.1987

CURRICULUM PLANNING-I

OBJECTIVES :

i) To identify the components of curriculum and state the relationship between them.

ii) To enumerate the steps involved in curriculum development.

iii) To develop a curriculum plan

iv) To appreciate the concept of health services and manpower development system in a curriculum for health professionals.

LEARNING EXPERIENCE:

i) Presentation of definition and concept of curriculum and steps involved in curriculum development.

ii) Group work of preparing a curriculum plan for the training of health personnel in two hypothetical situations.

iii) Plenary session

EVALUATION:

Very helpful : *16*

Helpful : *7*

SESSION-II

ITEM ANALYSIS

OBJECTIVES :

i) To conduct item analysis of MCQs to determine the difficulty level, discrimination index and the distractor effectiveness.

ii) To apply the findings of item analysis to review the construction of test items.

LEARNING EXPERIENCE:

i) Introduction to item analysis and its use
ii) Presentation of steps for performing item analysis.
iii) Group task of computing difficulty level and discrimination index for a given set of answer sheets.
iv) Plenary session and discussion

EVALUATION: Very helpful : *23*

SESSION-III

SIMULATED PATIENT MANAGEMENT PROBLEM (SPMP) AND COMPUTER ASSISTED LEARNING (CAL)

OBJECTIVES:

i) To identify the concept and features of SPMP;
ii) To perform an SPMP exercise on "Abdominal Pain"
iii) To enumerate advantages and limitations of SPMP method.
iv) To introduce Computer Assisted Learning (CAL) and to demonstrate two programs.

LEARNING EXPERIENCE:

i) Presentation of features of SPMP

ii) Group Exercise in SPMP on abdominal pain

iii) Discussion

iv) Demonstration of 'CAL'

v) Discussion on advantages and disadvantages of 'CAL'

RESOURCES :

i) SPMP Booklets

ii) Handouts on SPMP and 'CAL'

iii) Computer, Monitors and Software package.

EVALUATION:

Very helpful	:	*11*
Helpful	:	*10*
No comments	:	*1*
Not helpful	:	*1*

24.9.1987

SESSION-I

CURRICULUM PLANNING-II

OBJECTIVES:

i) *To consider the recommendations of the Medical Council of India with respect Undergraduate Medical Education.*

ii) *To appreciate the fact that the MCI recommendations provide for an element flexibility as regards the scope of Undergraduate curriculum.*

iii) *To identify the agencies which are responsible for effecting curricular changes.*

LEARNING EXPERIENCE:

i) *Distribution of relevant paragraphs of MCI recommendations on Undergraduate curriculum.*

ii) *Group discussion according to the guidelines provided to the participants.*

iii) *Plenary session and discussion in the light of objectives.*

RESOURCES:

Booklet containing relevant paragraphs and abstracts from MCI recommendations on UG Medical Education.

EVALUATION:

Very helpful	..	*14*
Helpful	..	*8*
No comments	..	*1*

SESSION-II

MECHANICS OF QUESTION PAPER SETTING

OBJECTIVES :

i) To appreciate the need for systematic approach to the setting of a question paper.

ii) To enumerate the steps involved in setting a question paper.

LEARNING EXPERIENCE :

i) Role play technique - one faculty member playing the role of the paper setter and the other one that of the interviewer.

ii) Discussion on the limitations of setting paper.

iii) Systematic approach to the setting of question paper

EVALUATION :

Very Helpful	:	*14*
Helpful	:	*8*
No comments	:	*1*

25.9.1987
SESSION-I

PRESENTATION OF INDIVIDUAL PROJECTS

On the final day of the course each participant presented the individual project proposal, which he/she thought would be feasible in his/her local setting for initiating appropriate plan of action.

The project proposals followed the guidelines issued by the Faculty members and consisted of following steps.

1. Situation Analysis and identification of the problem.
2. Definition of the problem.
3. Setting the objectives.
4. Identification of potential obstacles.
5. Planning the project.
6. Designing the strategies.

The participants were also required to implement the project at their local institution and subsequently send to NTTC JIPMER the report on the project implementation, project evaluation and also about the recycling of the project in case it were effected. The presentation of each project proposal was followed by discussion by the participants as regards the various points included in the project.

The list of individual projects presented is given in Annexure IV.

COURSE EVALUATION

Evaluation of the course was made through

i) Pre-test in the beginning of the course,

ii) Post-test on the penultimate day of the course,

iii) Daily Evaluation at the end of each day except the concluding day.

iv) Programme evaluation on the final day of the course.

Pre-test and Post-test:

Pre-test was administered to the participants to ascertain their level of knowledge in Educational Science and Technology at the beginning of the course. Post-test was conducted on the penultimate day of the course in order to find out the improvements that took place in knowledge and attitude of the individual participant in the field of Educational Science and Technology, consequent upon their participation in the National Course.

The Pre-test and Post-test scores are furnished below:

	Pre-test	Post-test
Mean ..	*47%*	*69%*
S.D ..	*13%*	*14%*
Range ..	*(12-68) 56*	*(47-93) 46*

$p = < 0.01$

It can be seen that there is significant improvement in the performance of participants at the end of the course. A Histogram showing pre-test and post-test values of individual questions is presented in Annexure-V. It can be inferred that the improvement has taken place in respect of vast majority of the concepts included in the course.

MP-130
1926

PROGRAMME EVALUATION

The Programme Evaluation questionnairre was administered to the participants on the final day of the course. The object was to elicit participants' opinion on the planning and the conduct of the course, so that necessary modification might be brought about during future courses.

The following analysis gives at a glance the success of the course with respect to the planning of the course, the learning climate and the potential applicability in terms of participants response.

A. Planning of the Course	Yes	No	No response
i) Objectives communicated clearly	22	1	-
ii) Objectives were realistic	22	1	-

	Com-pletely.	To some extent	No response
iii) Topics relevant to the course	19	4	-

	Too long	Too short	Right length	No response
iv) Relevance of the duration of the course	5	2	16	-

	Yes	No	No respons
v) Availability of Resource materials	23	Nil	-

B. Learning Climate

		Yes	No	No response
i)	Characterised by openness	23	-	-
ii)	Encouraging active participation	23	-	-
iii)	Opportunity for critical comments	23	-	-

C. Applicability of the knowledge acquired.

i)	Acquisition of knowledge	21	2	-

		Fully	To some extent	No response
ii)	Motivation of application of knowledge	8	15	-

		Yes	NO	No response
iii)	Capability of stimulate interest in others	20	2	1

Area		To great extent	To some extent	To little extent
i)	Educational Objectives	15	8	-
ii)	Teaching learning Methods and Media	20	3	-
iii)	Educational Evaluation	15	8	-
iv)	Curriculum Development	9	13	1

SUGGESTIONS/RECOMMENDATIONS

Some of the useful suggestions and comments received from the participants were as follows:

1) *Bibliography on Educational Science may be sent to the participants before the conduct of the workshop, for facilitating better learning by the participants.*
2) *More number of young participants may be called for the workshop, as they are amenable for changes and have better opportunity for implementing the outcome of training for a long time.*
3) *The training programme may be more effective if the participants are provided with an opportunity to observe classroom teaching conducted by faculty members.*
4) *The participants in such course may be considered as a mandatory requirement for junior medical teachers.*
5) *NTTC should explore the possibility of starting a Diploma Course in Medical Education.*
6) *The NTTC may be upgraded as a Research Centre and also as an Advisory body rested with powers to make recommendations to Medical Colleges, Universities and M.C.I.*
7) *Medical ethics needs more attention in medical education.*
8) *The course is a great eye-opener for medical teachers to organise their teaching programme in a more planned and systematic way*
9) *On the whole the course was very useful and interesting.*

VALEDICTION:

The valedictory function was held on the afternoon of 24th September, 1987. Prof. S. Chandrasekhar, Medical Superintendent JIPMER presided over the function. Dr. Samir C. Mitra, Project Officer presented a brief report of the activities and the achievements of N.T.T.C. Dr. Sushama Bhargava spoke on behalf of the participants. Professor S. Chandrasekhar presented certificates to the participants and appreciated the efforts of NTTC in making the course a rewarding experience for the participants.

Dr. Asha Oumachigui, a faculty member, proposed a vote of thanks.

ACKNOWLEDGEMENT:

The NTTC, JIPMER is highly grateful to the following:

1) *The Heads of the Institutions and the authorities of the State Governments for having sponsored the medical teachers for participation.*
2) *Government of India, Ministry of Health and Family Welfare, for having extended financial support.*
3) *Administrative staff of JIPMER for having extended full cooperation in conducting the course successfully.*

ANNEXURE-IV

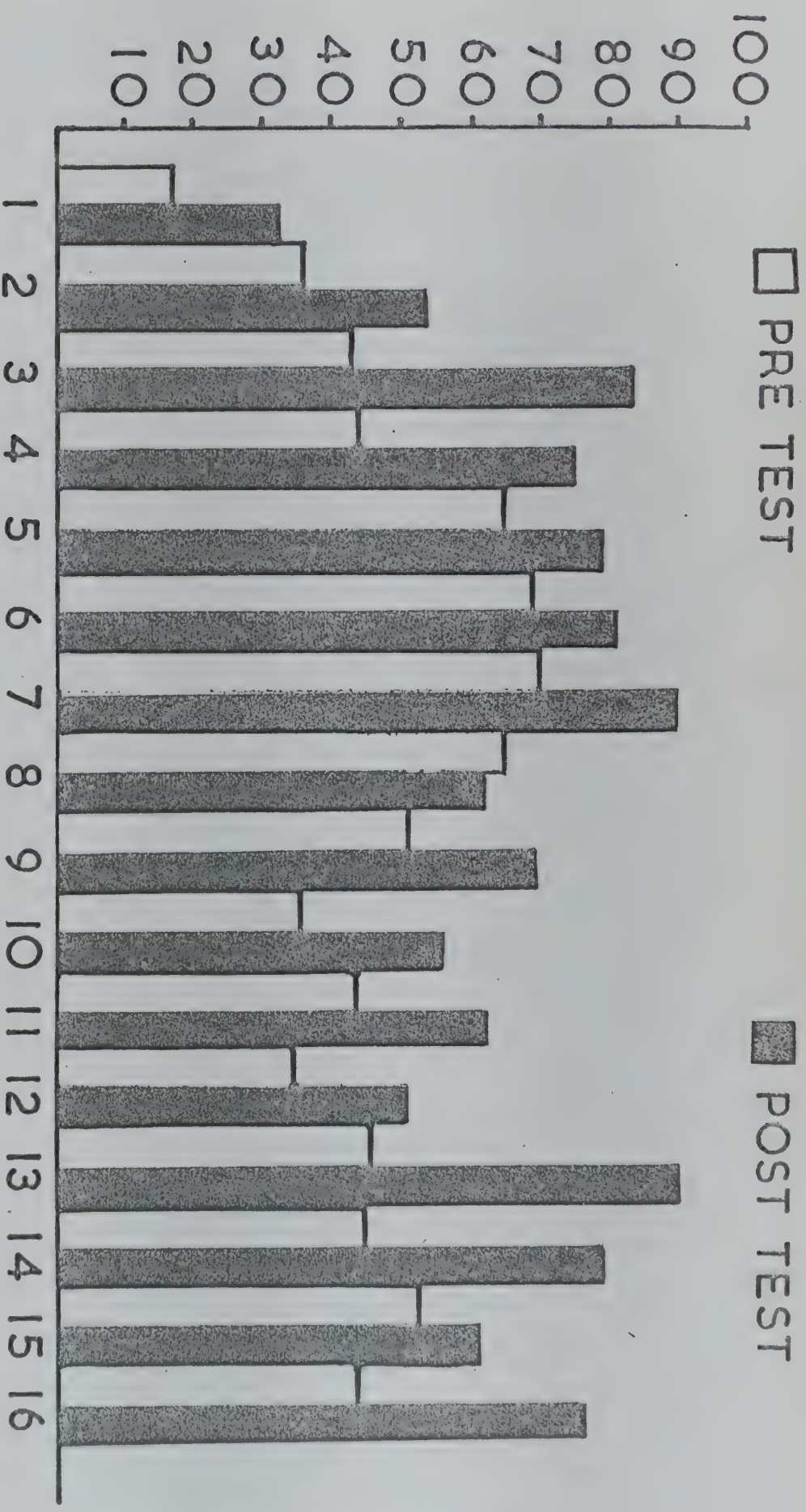
LIST OF INDIVIDUAL PROJECTS

1.	*Dr. Prem Pais*	*To improve undergraduate skills in management of common medical problems.*
2.	*Dr. Shameem Shariff*	*Integrated teaching.*
3.	*Dr. Sylvia Kamath*	*To introduce into the Anatomy Department of St. John's Medical College the new concepts of Evaluation Methods.*
4.	*Dr. Shiv Dutt Shukla*	*To build MCQ bank in Pharmacology for Undergraduate students.*
5.	*Dr. Sitendu Bose*	*To establish a MCQ bank in the Department of Anatomy, Gandhi Medical College, Bhopal.*
6.	*Dr. B.R. Gantayat*	*Improvement of academic performance of final examination deferred (failed) candidates.*
7.	*Dr. S.S. Patro*	*Radio diagnosis teaching for undergraduates.*
8.	*Dr. G.A. Govinda*	*Introduction to micro-teaching in the Department of Medicine.*
9.	*Dr. M.K. Guttal*	*Introduction of self-learning material (SLM) in Physiology.*
10.	*Dr. Lalita Mahale*	*Introduction of Micro-teaching as a T/L method for staff in Pathology of Karnatak Medical College, Hubli.*
11.	*Dr. Mrs. S. Bose*	*Enhancement of teaching skill of junior staff in the department of Physiology by introduction of micro-teaching.*
12.	*Dr. Kavi Dutt Bhargava*	*To prepare simulated patient management problem (SPMP) exercise for students to enlarge their clinical experience.*

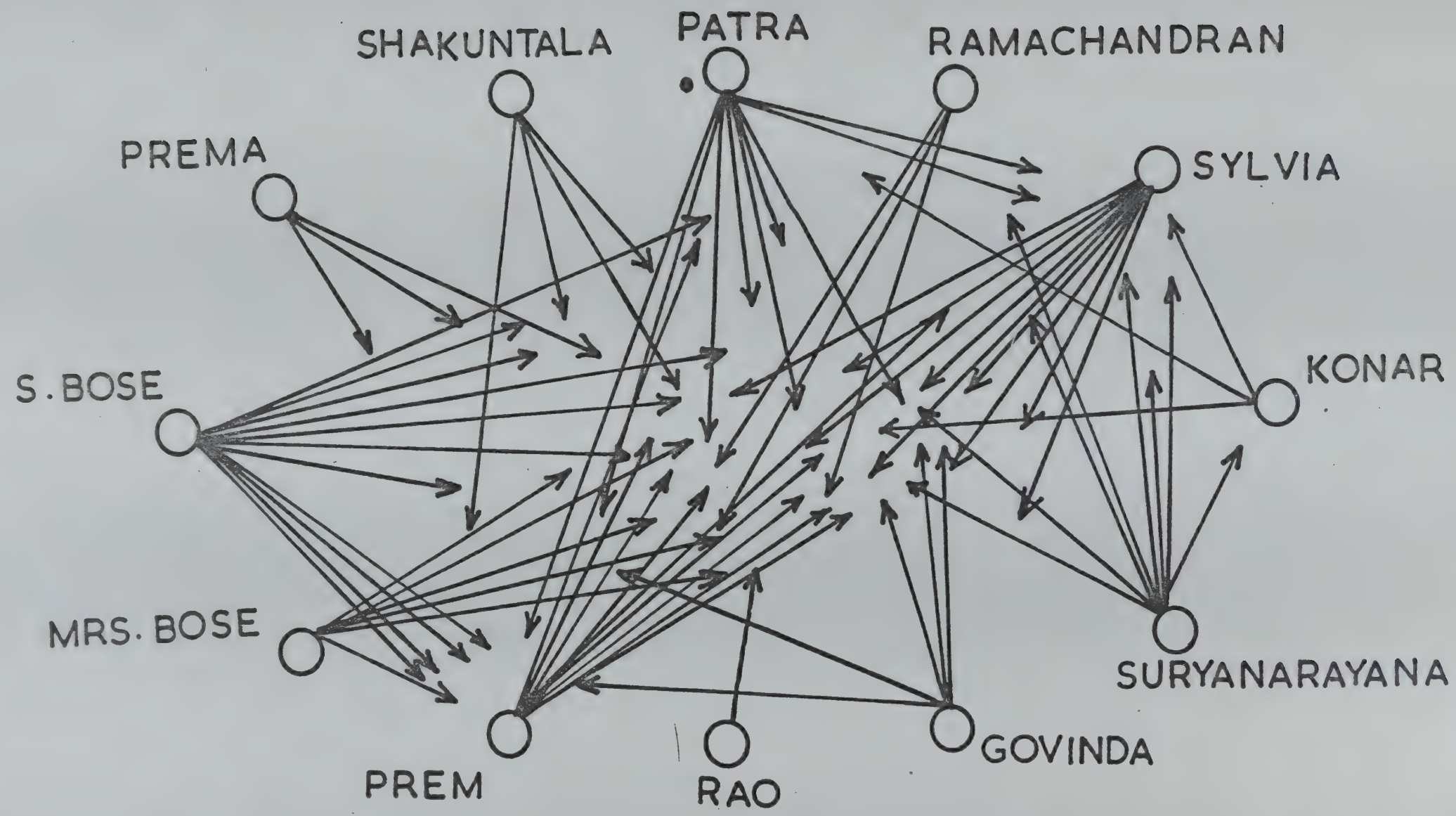
13.	*Dr. Mrs. Sushama Bhargava*	*Introduction of simulated patient management problem (SPMP) as applied to teaching of Pathology and laboratory medicine.*
14.	*Dr. B. Suryanarayana*	*To introduce MCQ's for assessment /evaluating the teaching methods.*
15.	*Dr. P. Venkata Rama Raju*	*To build MCQ bank in S.P.M.*
16.	*Dr. S. Venkateswara Rao*	*To build MCQ bank in Ophthalmology at Rangaraya Medical College, Kakinada.*
17.	*Dr. B. Bapiraju*	*To acquaint the C.R.R.I. (Compulsory Rotating Resident Internees) about proper collection and despatch of specimens for microbiological investigations.*
18.	*Dr. Shakuntala Subramanian*	*Reorientation course in clinical Biochemistry for final year MBBS students and CRRI's of Medical College and the attached Hospital, Chengalpattu, Tamilnadu.*
19.	*Dr. A. Ramachandran*	*To draw a plan of one month course in leprosy for Medical Officers adopting newer methods of teaching.*
20.	*Dr. Ahmad Zia Mawlayi*	*Organisation of special teaching programme for backward students.*
21.	*Dr. Geetha Rajagopalan*	*To develop a tool for evaluation of ability to conduct a normal delivery by a final year medical student after completion of internment period.*
22.	*Dr. D. Konar*	*Early identification slow learners and measures to improve them.*
23.	*Dr. V. Prema*	*To increase the number of clinical autopsies.*

Annexure-V

1. *Educational Process*
2. *Educational Objectives*
3. *Taxonomic Domains*
4. *Specific Instructional Objectives*
5. *Small Group Discussion*
6. *Micro-teaching*
7. *Audio-visual Aids*
8. *Teaching/Learning Methods*
9. *Evaluation: Methods*
10. *Evaluation: Types*
11. *M.C.Q*
12. *Criteria of Good Evaluation*
13. *Curriculum*
14. *Question Paper Setting*
15. *National Health Policy*
16. *Computer Assisted Learning*

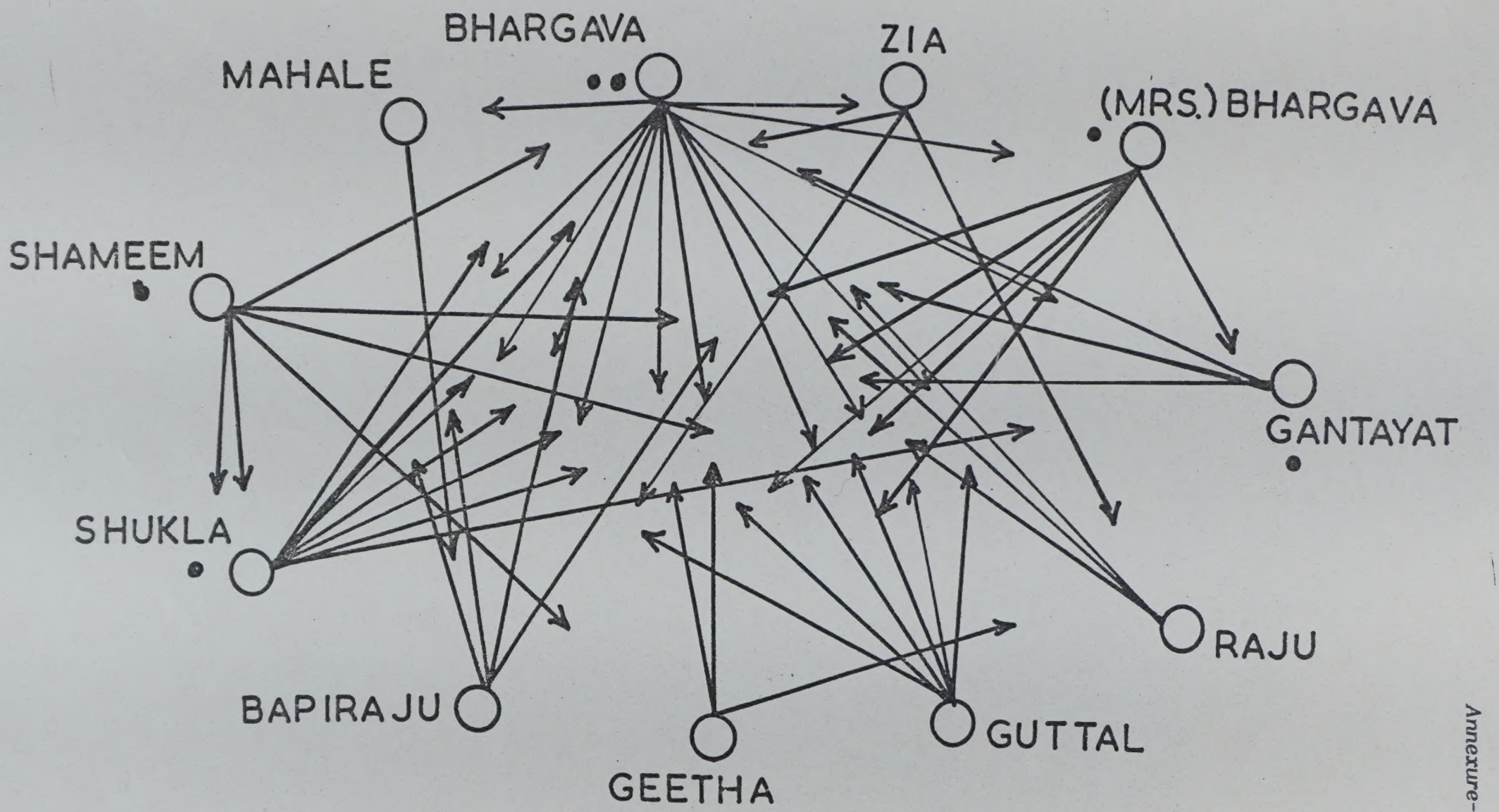


GROUP I



Annexure-VI

GROUP II



Annexure-VI